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REMARKS

The Office action dated July 3, 2006, has been carefully reviewed and the foregoing amendments have been made in response thereto.

Claims 2, 4, 5, 7, 8, 10-14 stand rejected under 35 U.S.C. 103(a) as unpatentable over Fujimura et al. (U.S. 5,860,797) in view of Yokota et al. (U.S. 6,041,883). Claims 11, 12 and 13 recite a spring seated against displacement relative to the housing at the first end and seated against the actuator at the second end.

The valve of the '883 patent is a balance valve having a coil 4 for changing the force produced by spring 17 and applied to the valve spool 14. Spring 17 contacts the slide 36 and the valve spool 14. Spring 17 is neither seated against axial displacement relative to the housing at its first end, nor secured by the housing against axial displacement relative to the housing, as the claims recite. Instead, spring 17 is free to move with the spool 14 and slide 36 relative to the housing. Neither the '883 patent nor the '797 patent discloses, teaches, or suggests the spring recited in the claims of this application.

The valve of the '883 patent is a balance valve having a coil 4 for changing the magnitude of the force of spring 17, which is applied to the valve spool 14. But the valve of the present application is not a balance valve; the force produced by the coil is directly applied to the spool. The electromagnetic force of the '883 patent adds to the force of spring 17 tending to move the spool 14 leftward and to open the bypass 19, whereas in the claimed invention the force of spring 68 is opposed to the electromagnetic force produced by coil 54. The claims, as amended, define the invention in these terms.

The device of the '797 patent has no electromagnetic actuation, and no spring comparable to those discussed above. The valve of the '797 patent is a balance valve that moves in response to discharge pressure at the right end of the bore, pressure on right side of land 16b of spool 16, the force of spring 17, and feedback pressure in chamber 23 at the left side of the bore. The principle of its control and

actuation is entirely different from that of the present invention, as the Office actions have acknowledged.

Claim 12 recites that the plunger is axially displaceable along the axis in response to the electromagnetic field and a force produced by the spring, but there is no differential pressure across the plunger tending to displace the plunger axially. Notice in the '883 patent that feedback pressure carried in passages 24, 21 and 25 to chamber 16 adds to the force of spring 17 and slide 36 to move the spool 14 leftward and to close the bypass 19. The variable electromagnetic force on slide 36 compensates for variations in the feedback pressure. Claim 12 discounts using pressure to move the valve. Neither the '883 patent nor the '797 patent discloses, teaches, or suggests actuation of the spool as recited in claim 12 of this application.

Claim 13 recites that the electromagnetic field tends to close the inlet of the bypass port, the plunger being axially displaceable along the axis in response to the electromagnetic field and a force produced by the spring tends to open the inlet of the bypass port. In the device of the '883 patent, spring 17 and the electromagnetic force both tend to close the bypass 19. Neither the '883 patent nor the '797 patent discloses, teaches, or suggests actuation of the spool as recited in claim 13 of this application.

In view of the foregoing amendment and remarks, the claims remaining in this application appear now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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